

# LBC Specification

## 1. Product Name

L-B-C® LEAD BARRIER COMPOUND  
 Type III - Interior/Exterior Encapsulant/  
 Encasement Coating for lead-based  
 paint (#5801 white)

## 2. Manufacturer

Fiberlock Technologies, Inc.  
 150 Dascomb Road  
 Andover, MA 01810 USA  
 Toll Free: 800-342-3755  
 Internet: www.fiberlock.com

## 3. Product Description

### BASIC USE

- L-B-C Type III is a high-solids, thermoplastic-elastomeric water-based copolymer blended specifically to form a durable yet flexible barrier between lead-based paint and the environment.
- L-B-C Type III is a high-solids coating formulated to offer unparalleled coverage, economics and paint-like aesthetics while preserving historic and architectural detail.
- L-B-C Type III contains Bitrex®, a very bitter-tasting, non-toxic anti-ingestant to discourage oral contact with lead paint.

### COMPOSITION & MATERIALS

L-B-C is a water-based elastomeric-thermoplastic.

### SIZE

Packaged in 1 gallon cans, 5 gallon pails and 55 gallon drums.

### YIELD

L-B-C will yield 120 ft<sup>2</sup> per gallon at the required thickness of 7 dry mils (14 wet mils).

### COLORS

L-B-C is available in white, or can be tinted to a wide array of colors. Contact the manufacturer for more details.

## LIMITATIONS

Do not use L-B-C Type III on friction surfaces or movable closures such as door jambs and window jambs. Do not dilute or thin L-B-C Type III. Some states require a surface assessment by a licensed lead inspector before application. Contact your state Department of Health, or Fiberlock for more information. The minimum application surface temperature is 45°F. If applying on wood substrate, ensure moisture content is 11% or below.

## 4. Technical Data

### APPLICABLE STANDARDS

- ASTM E-1795 Standard Specification for Non-Reinforced Liquid Coating Encapsulation Products for Leaded Paint in Buildings.

### PHYSICAL/CHEMICAL PROPERTIES

Refer to Table 1 for physical and chemical properties of L-B-C Type III.

### APPROVALS

- L-B-C has been independently tested at DL Laboratories, and met or surpassed the ASTM E-1795 Standard Specification for Non-Reinforced Liquid Coating Encapsulation Products for Leaded Paint in Buildings. Refer to Table 2 for ASTM E-1795 results.
- L-B-C Type III satisfies all HUD and EPA requirements which define encapsulation as a permanent abatement method.
- L-B-C Type III has been certified by the Massachusetts Department of Public Health (No. DL-12362), approved by the State of Ohio Department of Health, and is accepted by the New York State Department of Health.

### FIRE RATING

L-B-C has a Class "A" fire rating when tested when tested in accordance with



*L-B-C Lead Barrier Compound*

ASTM E84, with a Flame Spread of "5" and Smoke Developed of "0".

### ENVIRONMENTAL CONSIDERATIONS

L-B-C Type III has been designated non-toxic by a certified toxicologist.

## 5. Installation

### PREPARATORY WORK

Before using L-B-C Type III, it is important to determine if the existing paint system is stable and well-adhered. This is done by performing an adhesion tape test on the surface to be coated. Perform this test at least once on each different type of surface to be coated. Clean a small area, rinse with clean water, and allow to dry. Apply a 6-10" strip of pressure-sensitive tape (packing or duct tape). Press the tape down with the rubber end of a pencil. After 90 seconds, remove (do not yank) the tape by pulling smoothly and slowly away from the surface. If more than one square inch of paint is removed along with the tape, the adhesion of the existing paint system is poor. When this occurs, additional preparation (i.e., wet sanding, scraping, cleaning, etc.) must be done to remove

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Figure 2. Lead-painted steel coated with L-B-C, National Gallery of Art, Washington, DC

poorly adhered paint. If less than one square inch of paint is removed from the substrate, the surface is sound and can be encapsulated.

## SURFACE PREPARATION

Remove or mask electrical plates, hardware, light fixture trim, and similar fittings prior to beginning encapsulation operations. Correct defects and clean surfaces affecting work in this section. Remove existing coatings that are flaking or unacceptable condition to receive coating. (All scraping and sanding should be done wet in order to avoid creating lead dust. Check local, state, and federal regulations and guidelines regarding specific lead-based paint abatement practices.) Seal any marks or defects that might bleed through encapsulant with an appropriate primer. Clean mold-contaminated surfaces with IAQ 1000, or use an EPA Registered antimicrobial disinfectant cleaner such as Fiberlock IAQ 2000, Fiberlock IAQ 2500, Shockwave or Shockwave RTU. Rinse with clean

water and allow surface to dry.

**Concrete and masonry:** Remove dirt, chalk, loose mortar scale, salt alkalis, oil and grease with a lead-specific detergent. Rinse well and allow surface to dry. Apply masonry conditioner to prevent future chalking.

**Plaster, Gypsum Wallboard:** Fill all surface defects, wet sand smooth and spot prime with stain blocking primer. Glossy surfaces must be wet sanded or otherwise deglossed prior to application of encapsulant.

**Ferrous Metal:** Remove rust and scale by wire brushing. Remove dust, dirt, oil and grease with lead specific detergent. When dry, immediately apply a rust-inhibiting direct to metal primer to prevent flash rusting.

**Galvanized Metal:** Remove dust, dirt, oil and grease with a lead-specific detergent. For areas where the galvanization has been damaged, apply a rust-inhibiting direct-to-metal primer to prevent flash rusting.

**Aluminum:** Remove dust, dirt, oil and grease with a lead-specific detergent. Etch the surface using an etching type metal prep, or apply a tie-coat once the aluminum surface is clean and dry.

## MIXING

Mix L-B-C Type III thoroughly prior to application.

## APPLICATION METHODS

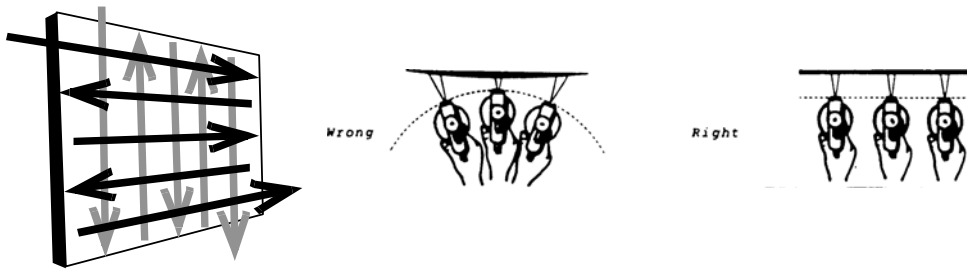
Apply L-B-C Type III only after the existing paint system has been rendered clean, dry, sound and dull. L-B-C Type III can be applied using a brush, roller or airless sprayer. One application by airless spray, or two applications by brush/roller are typically sufficient to achieve the required minimum dry film thickness of 7 mils. Clean up tools and drippings with warm, soapy water be-

TABLE 1 PHYSICAL/CHEMICAL PROPERTIES OF L-B-C TYPE III

| Property                   | L-B-C Type III  |
|----------------------------|---|
| Percent Solids             | 62 ±2% by weight  |
| Volatile                   | Principally water   |
| Average Particle Size      | 0.2 microns   |
| Weight at 78°F             | 11.5 ±0.3 lbs/gal   |
| Viscosity at 78°F          | 95-120 KU   |
| Flash Point                | Noncombustible (Water-based)  |
| Minimum Shelf Life at 78°F | 12 months in unopened container   |
| Finish                     | Eggshell 60° spec. gloss: 4 ±1<br>85° spec. gloss: 3 ±1                           |
| Drying time at 78°F        | To touch: 1-2 hours<br>Additional coats/topcoat: 8-16 hours<br>Full cure: 30 days |

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**Figure 3. Proper spray application of L-B-C Lead Barrier Compound**

fore L-B-C Type III dries.

### PRECAUTIONS

L-B-C Type III must be applied when the atmosphere and surface temperatures during application and for 12 hours thereafter are above 45°F. Protect from freezing. Keep container tightly sealed when not in use.

### 6. Availability and Cost

#### AVAILABILITY

L-B-C Type III is available through a network of authorized distributors and paint stores. Contact Fiberlock Technologies, Inc. at 1-800-342-3755 for distributor information or visit [www.fiberlock.com](http://www.fiberlock.com).

#### COST

Material cost per square foot can be estimated by dividing the price per gallon from an authorized distributor by 120 ft<sup>2</sup> per gallon.

### 7. Warranty

Fiberlock Technologies, Inc., warrants L-B-C Type III for a minimum of 20 years from the date that the product is applied to form an effective barrier from the hazards of the encapsulated lead-based paint. The warranty described in this paragraph, expressed or implied, is including but not limited to the implied warranties of the salability and fitness for a particular purpose. User shall determine the suitability of L-B-C Type III's use and assume any and all risks and liabilities which may arise in connection

with the application of L-B-C Type III. This warranty is extended only to the purchaser of L-B-C Type III and does not apply to any damages which are a direct result of improper surface preparation and/or application, including, but not limited to:

1. The failure to properly apply L-B-C Type III to a sound surface, which has been cleaned of foreign matter and dry at the time of application.
2. The failure to apply L-B-C Type III above the recommended minimum application temperature.
3. The failure to apply L-B-C Type III in full accordance with Fiberlock Technologies' written application instructions and guidelines.

This warranty does not extend to, nor shall Fiberlock Technologies be liable for any damage resulting from any abuse of the encapsulated surface by the tenants or occupants, improper maintenance, water damage, or other conditions beyond Fiberlock Technologies' control. The sole and only liability under this warranty shall be, at Fiberlock Technologies' option, either to replace the product if proved defective or to refund the purchase price paid. Fiberlock Technologies shall not be held liable for any incidental damages, or for any consequential damages to property, or any losses of revenue which may have been caused by a defect or failure of the product. The purchaser of this product must notify Fiberlock at 150 Dascomb Road, Andover, Massachusetts 01810 (800-342-3755) within



**Figure 4. L-B-C over wood door frames at Fort Knox, KY**

45 days to advise of any suspected manufacturing defects. This warranty gives the purchaser specific legal rights and possible additional rights which may vary from state to state.

### 8. Maintenance

If surfaces coated with L-B-C Type III are damaged, repair and re-apply L-B-C Type III immediately. Inspect for damage periodically.

### 9. Technical Services

Fiberlock Technologies, Inc. employs a knowledgeable factory trained team of field representatives. In addition, technical questions can be answered by one of our full time technical service representatives by calling 1-800-342-3755. Complete specifications and technical information can also be obtained online at [www.fiberlock.com](http://www.fiberlock.com).

### 10. Filing System

Additional information is available upon request.



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TABLE 2

ASTM E-1795 RESULTS FOR L-B-C TYPE III

| <u>Requirement</u>               | <u>ASTM Test</u>       | <u>Result</u>                    |
|----------------------------------|------------------------|----------------------------------|
| Adhesion                         | D 3359                 | 5A                               |
| Chalking                         | D 4214                 | 8                                |
| Density or weight per gallon     | D 1475                 | 11.5 lbs./gal.                   |
| Dry abrasion resistance          | D 4060                 | 7.9%                             |
| Dry-film thickness               | D 1005, D 1186         | 7 mils                           |
| Flexibility                      | D 522                  | conforms                         |
| Impact resistance                | D 2794                 | 160 + in. lbs.                   |
| Mildew resistance                | D 3273, D 3274         | 10                               |
| Paintability                     | D 3359                 | 5A                               |
| Scrub resistance                 | D 2486                 | 1350 cycles                      |
| Surface burning characteristics  | E 84                   |                                  |
|                                  | flame spread           | 5                                |
|                                  | smoke developed        | 0                                |
| Tensile properties               | D 2370                 |                                  |
|                                  | tensile strength       | 565 psi                          |
|                                  | elongation             | 48.9%                            |
|                                  | elongation at 100 psi  | 1.2%                             |
| VOC content                      | D 3960                 |                                  |
|                                  | grams/liter            | 85                               |
|                                  | pounds/gallon          | 0.7                              |
| Water and chemical resistance    | D 1308                 |                                  |
|                                  | 50% ethanol            | conforms                         |
|                                  | 5% acetic acid         | conforms                         |
|                                  | 5% sodium hydroxide    | conforms                         |
|                                  | 5% hydrochloric acid   | conforms                         |
|                                  | 5% citric acid         | conforms                         |
|                                  | corn oil               | conforms                         |
|                                  | 2% phosphoric acid     | conforms                         |
|                                  | 5% trisodium phosphate | conforms                         |
|                                  | distilled water        | conforms                         |
| Water vapor transmission (perms) | D 1653                 | 0.28 grains/ft <sup>2</sup> /hr. |
| Weathering/aging                 | G 53                   |                                  |
|                                  | Weathering 1000 Hrs.:  |                                  |
|                                  | chalking               | 8                                |
|                                  | adhesion               | 5A                               |
|                                  | flexibility            | conforms                         |
|                                  | tensile strength       | 695 psi                          |
|                                  | elongation             | -34.4%                           |
|                                  | Aging 12 cycles:       |                                  |
|                                  | adhesion               | 5A                               |
|                                  | flexibility            | conforms                         |
|                                  | tensile strength       | 635 psi                          |
|                                  | elongation             | -22.7%                           |
|                                  | Aging 2 weeks at 40°C: |                                  |
|                                  | adhesion               | 5A                               |
|                                  | flexibility            | conforms                         |
|                                  | tensile strength       | 633 psi                          |
|                                  | elongation             | -5.5%                            |